TEXTO PARA DISCUSSÃO

ISSN 0103-9466

333

Evolution of child labor rate in Brazilian states: policy limits and contradictions

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Março 2018

instituto de economia
Desde 1968

UNICAMP

Evolution of Child Labor Rate in Brazilian States: Policy Limits and Contradictions ☆

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Abstract

This study descriptively explores the evolution of child labor rates in Brazilian states, indicating specific limits and contradictions of governmental measures adopted for its reduction. On one hand, we examine the coverage of the *Bolsa Família* conditional cash transfer (PBF), which is a cross-cutting program to reduce poverty. On the other hand, we examine the design of Labor Inspections with focus on child labor. For this purpose, we used data from the National Household Sample Survey, Ministry for Social Development and Ministry for Labor and Unemployment. Data analysis covers the periods between 2004–2009 and 2011–2014. We observed that both countermeasures have contradictory distributions as to the rate of child labor in states. Particularly, we found that the evolution of rates along this period engendered expressive limit to the PBF program as a measure to combat child labor.

Key words: *Bolsa Família*, Labor Inspection, limit, contradiction.

1. Introduction

In accordance with ILO conventions, the Brazilian Federal Constitution defines child labor as the engagement of children and adolescents between age 5 to 15 in any labor activity, except in the condition of apprenticeship. This is the definition that we use throughout this study.

Brazil has recently been internationally cited as one of the successful countries in the combat against child labor. This was due to the expressive reduction observed since the beginning of the 21st century. However, CONAETI (2011), and Rosado and Luciana (2014) pointed to diminishing reductions of child labor rate in specific activities such as family agriculture and urban informal services. According to these studies, such trend is due to the limit of governmental policies to reach these activities.

There is widespread of literature on Brazil that investigates factors which precede the decision of a child to work or not. Those which have been consolidated in literature are family income, family structure, parent's education, level of urbanization and social culture and ideology (Basu, 1999; Kassouf, 2001; Emerson and Souza, 2003; Lopez-Calva, 2003; Guarcello et al., 2007; Kassouf and Justus, 2010, to mention few). Some studies have also reached a consensus concerning the consequences of early work

☆We thank FAPESP (State of São Paulo Research Foundation) for financial support.

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on health and future earnings of individuals and, inclusively, on the economy as a whole (Baland and Robinson, 2000; Feitosa et al., 2001; Souza, 2011; Justus et al., 2015; Aransiola, 2017). Still, some focus on the long run cycle of child labor among generations of the same family (Emerson and Souza, 2003; Aquino et al., 2010). Although no clear consensus has been reached, a series of recent studies have also investigated the impact of governmental countermeasures on child labor in Brazil (Cardoso and Souza, 2004; Ferro et al., 2010; Cacciamali et al., 2010; Araujo et al., 2010; Nascimento and Kassouf, 2016). Such lack of consensus is the major motivation for this study.

There are diverse countermeasures adopted in Brazil to reduce child labor, most of which involve conditional cash transfer and inspections. As per cash transfer, the major and current programs are the Program for Eradication of Child Labor (PETI)[3] and the *Bolsa Família* Program (PBF), both managed by the Ministry for Social Development (MDS). The difference between both programs is that the former only attend to families above the poverty line and is, thus, exclusively focused on families with child laborers. However, the latter attends to all poor and extremely poor families, making it a cross-cutting and wider program. As per inspection, the only governmental measure adopted to reduce child labor is the Labor Inspection with focus on child labor conducted by the Ministry of Labor and Employment (MTE). In this study, we opt to focus on the PBF and Labor Inspection since both are nation-wide governmental measures. Nonetheless, these programs differ in the sense that the former is cross-cutting and voluntary, while the latter is focal and involuntary.

In short, the major objective of this study is to provide a relevant descriptive analysis of data concerning child labor rate in Brazilian states. In this course, we aim to verify traits which shed light on limits and contradictions faced by governmental policies designed to reduce child labor in Brazil.

Aside this brief introduction, Section 2 describes and contextualizes the governmental countermeasures which we emphasize. In Section 3, we present data sources, analyses and discussions. Section 4 is conclusive.

2. Countermeasures against Child Labor

In the first part of this section, we provide details concerning the design and characteristics of the Labor Inspection activities with a focus on child labor. In the second, we make a general description of the conditional cash transfer programs adopted in Brazil, emphasizing the *Bolsa Família* Program.

2.1. Labor Inspection

Labor Inspections with focus on child labor was implemented in Brazil as a result of expressively high rates of child labor in the 1980s. Thenceforth, inspections have been managed by the Secretariat of Labor Inspection (SIT), which is part of the Brazilian Ministry of Labor and Employment (MTE).

In practice, inspections are preceded by an annual plan elaborated by the Regional Superintendencies of Labor and Employment (SRTEs) based on guidelines of the SIT. In this plan, inspections are spatially allocated based on reported incidences of child labor, prioritizing the worst forms. Subsequently, inspectors engage in preventive actions that involve awareness-creation by publicizing the negative impacts of child labor through lectures, seminars, debates, and campaigns to children, employers, and families. Months after, inspectors are designated to visit specific businesses or workplaces in urban and rural areas throughout the country (ILO/SIT, 2010).

[3]Here and henceforth, we use Brazilian popular acronyms and abbreviations.

During visits, inspectors identify irregularities concerning child labor and specify the characteristics of work exercised by children and adolescents. When judged necessary, child laborers are withdrawn from work and infraction reports are issued on exploiters, which may lead to fining. To avoid the return to work, children and adolescents are included in social welfare programs. Children below the age of 14 are enrolled in cash transfer programs conditioned to school attendance and participation in social, educational and healthcare projects. Adolescents above the age of 14 are enrolled in apprenticeship programs which offer educative and technical training. It is important to note that aside a focal policy on child labor, withdrawal of children and adolescents from work is involuntary. Thus, such policy can reach all population, provided that child labor is detected.

2.2. Conditional Cash Transfer (CCT)

The *Bolsa Escola* and *Renda Mínima*[4] were the first CCT programs adopted in Brazil in the mid-1990s. These programs granted a financial subsidy to poor parents under the condition of enrolling their children in school. In 1996, the Program for Elimination of Child Labor (PETI) was created to address high proportion and precarious situation of children in the labor market. Specifically, as pointed by Soares and Sátyro (2010), the PETI had the objective to withdraw children and adolescents between age 7 and 15 from hazardous work and enroll them in school. Still, the PETI program also required children to participate in extracurricular sport, cultural, artistic and leisure activities in order to inhibit time allocation to work. Inasmuch as greater attention was given to children and adolescents, the PETI program also created job opportunities for families who earned less than half of the minimum salary so as to prevent such families from sending their children back to work.

In 2003, all cash and in-kind transfer programs designed to reduce poverty were combined to form a single nationwide CCT program – the *Bolsa Família* Program (PBF), which is managed by the Ministry for Social Development (MDS). Participation of families in the PBF is conditioned to the level of family per capita income. Whereas, for continuity in the program, beneficiary families have to meet additional conditions concerning health care and enrollment and attendance of children in school. Therefore, one can interpret that the program seeks to increase human capital of poor families through education and health, which in turn can yield better income distribution in the long run and also break the poverty cycle.

In 2005, the PETI program was incorporated into the PBF to enhance management and exploit the synergy between both programs. Despite critics regarding the amalgamation of these welfare programs, experts affirmed in the report published by Repórter Brasil (2013) that such action was imminent in order to optimize public resources, increase coverage and enhance the accessibility of grants by eligible families. In practice, child labor turns to be addressed by one of the conditionalities for participation in the PBF which obligates beneficiary families to withdraw children from work and enroll in school.

Presently, the PBF attends families with per capita income below the poverty line[5], prioritizing families with pregnant women or children or adolescents under age 17. Regarding financial values, a fixed amount of R$77 (Brazilian currency) is transferred to extremely poor families irrespective of family structure. In addition, a variable amount

[4]Schooling grant and Minimum Income, respectively.

[5]In 2014, the poverty and extreme poverty line are set at R$154 ($1.90 per day) and R$77 ($0.95 per day) monthly per capita income, respectively.

between R$35 and R$175 is passed on to poor and extremely poor families depending on the family structure. As observed through the values, the PBF particularly aims to raise vulnerable families above the poverty line. Note that, unlike the Labor Inspection policy, participation in the PBF is voluntary and limited to the poor population.

To cover such a gap, the PETI program was reconfigured to reach child laborers from families above the poverty line. However, the value transferred is expressively lower than that of the PBF program – R$ 25 per child to families who reside in rural or urban areas with less than 250 thousand inhabitants and R$ 40 per child to families who reside in urban areas with more than 250 thousand inhabitants. Moreover, according to data from 2014 National Household Sample Survey (PNAD), the average income of child laborers in urban and rural areas is about R$ 363 and R$ 262, respectively.

3. Data and Analysis

3.1. Sources of Data

Data concerning child labor rate was obtained by aggregating microdata the National Household Sample Survey (PNAD) by state. In order to address evolution, we calculated this rate for years between 2004 and 2014 (without 2010). Data for the *Bolsa Família* Program and labor inspection were obtained from the Ministry for Social Development and Ministry for Labor and Employment, respectively. On one side, for the PBF, we make a comparison of data from 2004 to that from 2014, by state. On the other side, for the labor inspection, we compare data from 2007 and 2014.

3.2. Analysis and Discussions

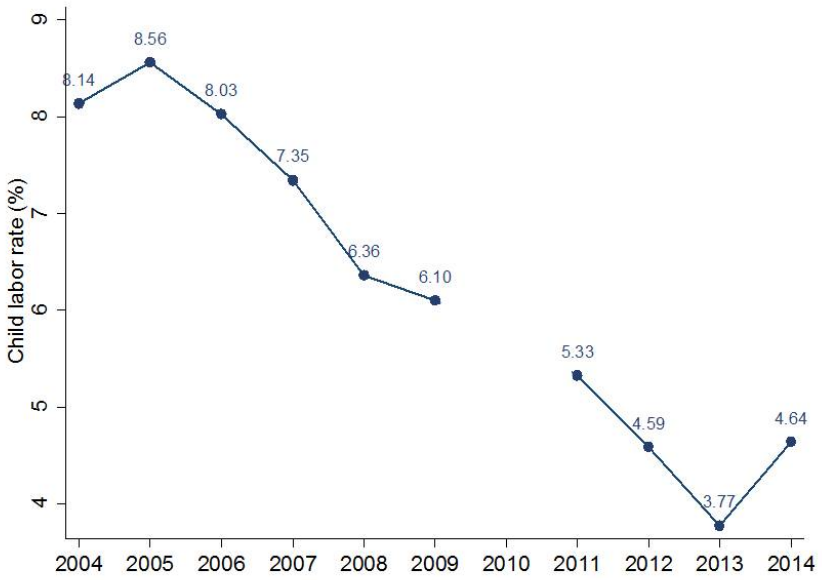
3.2.1. Evolution

Brazil has recently been internationally cited as a model in the quest of combating child labor due to the expressive reduction observed during the last decade. As portrayed in Fig. 1, the rate of child labor in Brazil shows a downward trend from 2004 to 2013. Compared to 2004, a slight increase of about 0.4 p.p. was observed in the year 2005. However, as from 2005, the rate of child labor plummeted expressively until the year 2013. Experts defend that such reduction is mainly due to the rise of a bigger welfare state marked by the launch of the PBF program together with other social programs. Roughly, from 2004 to 2013, the Brazilian government successfully cut the rate of child labor in half.

Notwithstanding the favorable scenario witnessed during the last decade, the passage from 2013 to 2014 was marked by an abrupt increase of about 0.9 p.p. in the rate of child labor. Although studies are yet to point to the potential causes of this increase, some believe it was simply a temporal fluctuation while others believe it to be an aftermath of the current economic crises. The latter public opinion seems more convincing since unemployment is on the rise and inflation has made most families to lose purchasing power, which might have led to the usage of child labor to bolster family income.

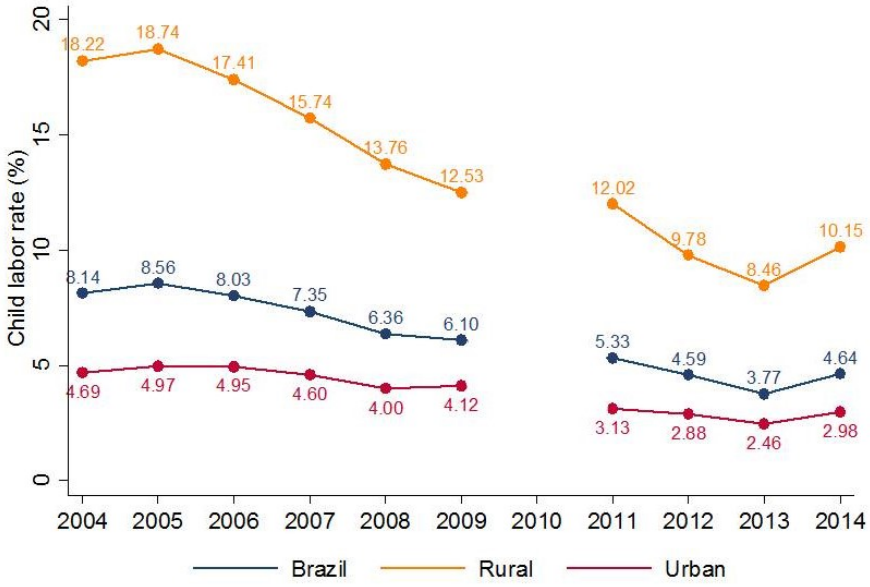
Brazilian child labor experts point to a new challenge, which is that of the diminishing reduction of child labor rate. This novel scenario can be clearly observed in Fig. 2, which decomposes the rate of child labor in rural and urban areas. The first observation from this figure is the preeminence of the rate of child labor in rural areas compared to urban areas. Specifically, the rate of child labor in rural areas was about four times the rate in urban areas in 2004 and about three and half times in 2014. Such preeminence may be explained, partly, by the level of poverty, the dominance of agricultural activities and difficulty of inspection in the rural areas.

Figure 1: Percentage of child labor, 2004 – 2009 and 2011 –2014, Brazil.



Source: Prepared using PNAD data

Figure 2: Percentage of child labor classified by rural and urban areas, 2004 – 2009 and 2011 – 2014, Brazil.



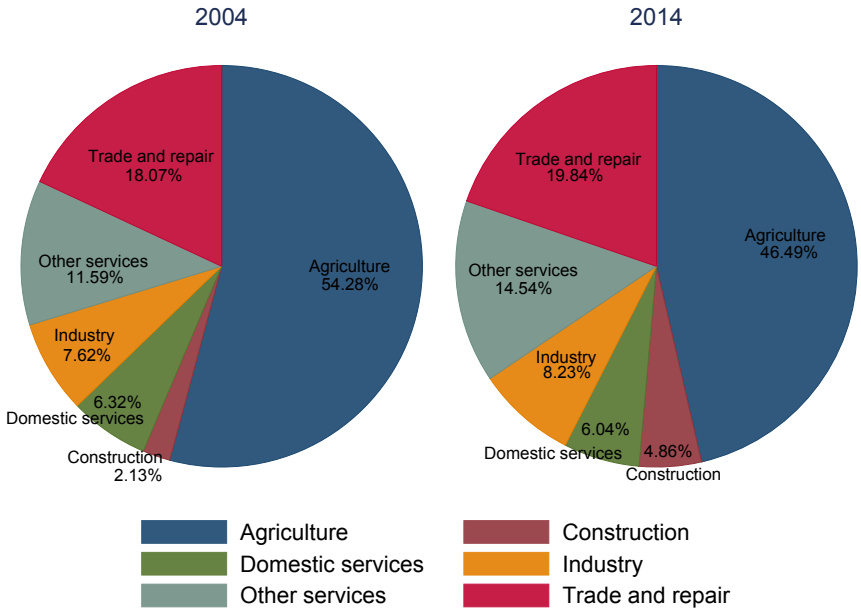
Source: Prepared using PNAD data

Aside comparative proportions of both areas, a more curious observation is that of an evolution of these proportions. Ignoring the recent shock, one clearly observes that the rate of child labor in the rural area reduced more sharply compared to that of the urban areas. This perception induces to conclude that the expressive reduction of child labor rate in Brazil is driven, mainly, by the reduction observed in the rural areas. This perception is upheld by the coincidence of acute increase observed in 2014 for rural areas and Brazil as a whole, but not for urban areas.

Fig. 3 illustrates the sectoral distribution of child labor in 2004 and 2014. The economic sectors considered are agriculture, industry, construction, trade and repair and services. We intentionally separated domestic services from other services to pay

focal attention. In accordance with most national and international studies, it is perceptible that the agricultural sector is the major employer of child labor. However, the participation of the agricultural sector is lower in 2014 compared to 2004.

Figure 3: Sectoral distribution of child labor, 2004, Brazil.



Source: Prepared using PNAD data

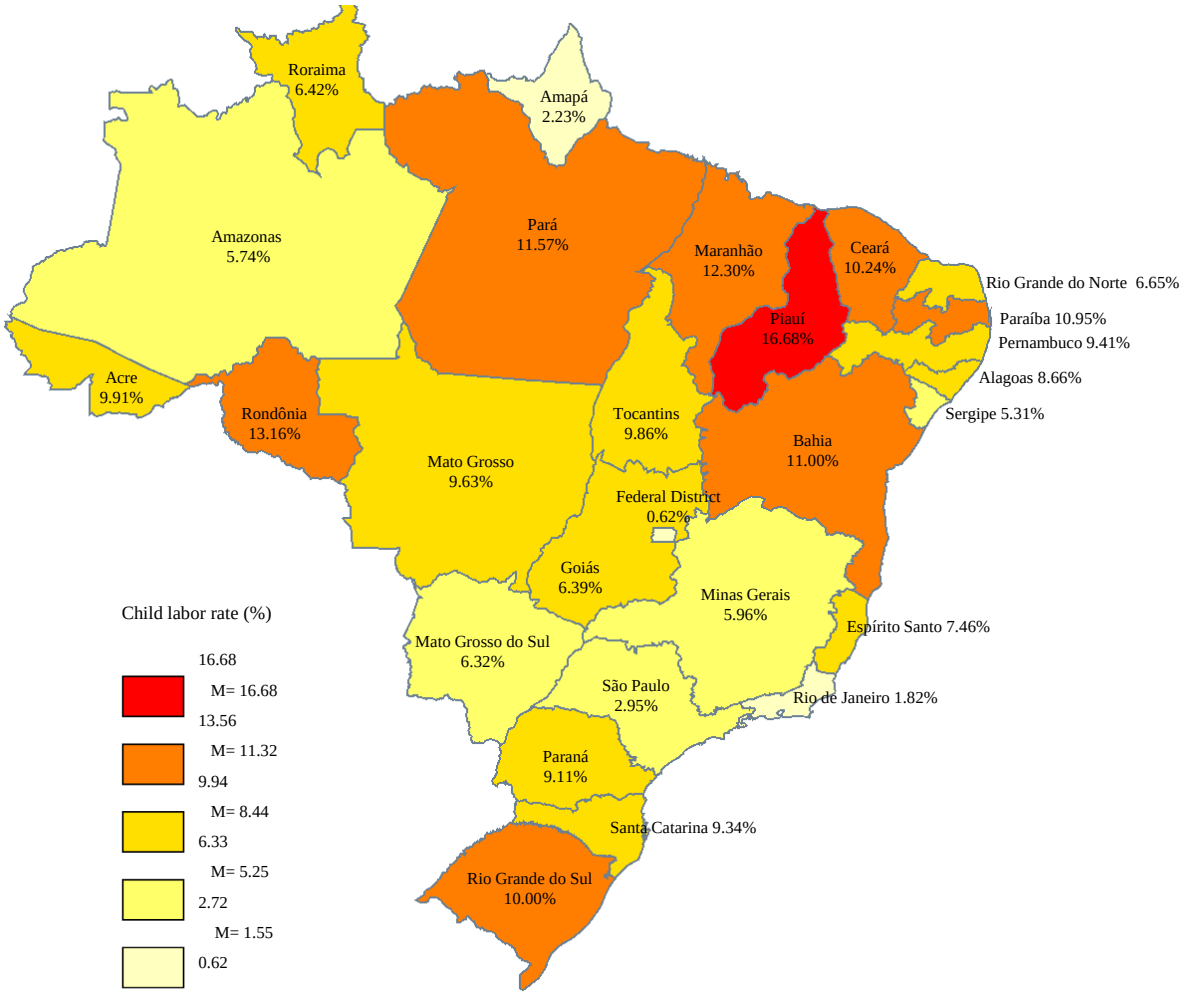
Specifically, in 2004 about 53.3% of child laborers were working in the agricultural sector, while in 2014 this proportion was 46.5%. The trade and repair sector, which is second to agriculture, was responsible for the employment of 18.1% of the child laborers in 2004 and 19.8% in 2014. The rate of child labor in the service sector is quite similar to that of the trade sector. However, separate analysis of domestic services shows that an expressive portion of child laborers in the service sector are domestic workers. The sector with the least employment of children and adolescents, in both years, was the industrial sector.

First, one clearly observes the concentration of higher rates in the Northern and Northeast compared to other regions. This is partly justifiable by the socioeconomic characteristics of these regions in terms of poverty, urbanization rate and preeminence of family agriculture. Comparing the map of year 2004 to that of 2014, one perceives slight homogenization of the rates of child labor in 2014. However, specific comparison of the evolution of rates indicates that such homogenization is due to a higher reduction of child labor in the Northern and Northeast, and lower reduction in the Southern and Southeast regions. This buttresses the observation illustrated in Fig. 2 regarding the higher responsiveness of child labor in less developed regions (North and Northeast) to reductions along time compared to relatively developed regions (South and Southeast). Such responsiveness also supports the observation made in the report published by Repórter Brasil (2013) that despite child labor in urban areas being more visible it is the most difficult to eradicate.

Fig. 4 and 5 illustrate the spatial distribution of child labor in Brazil in 2004 and 2014, respectively. As presented earlier, the percentage of child labor reduced significantly in Brazil as a whole during the referred period. However, this tendency was not observed in all state.

The states with the highest rates of child labor in 2004, in reducing ranking order,

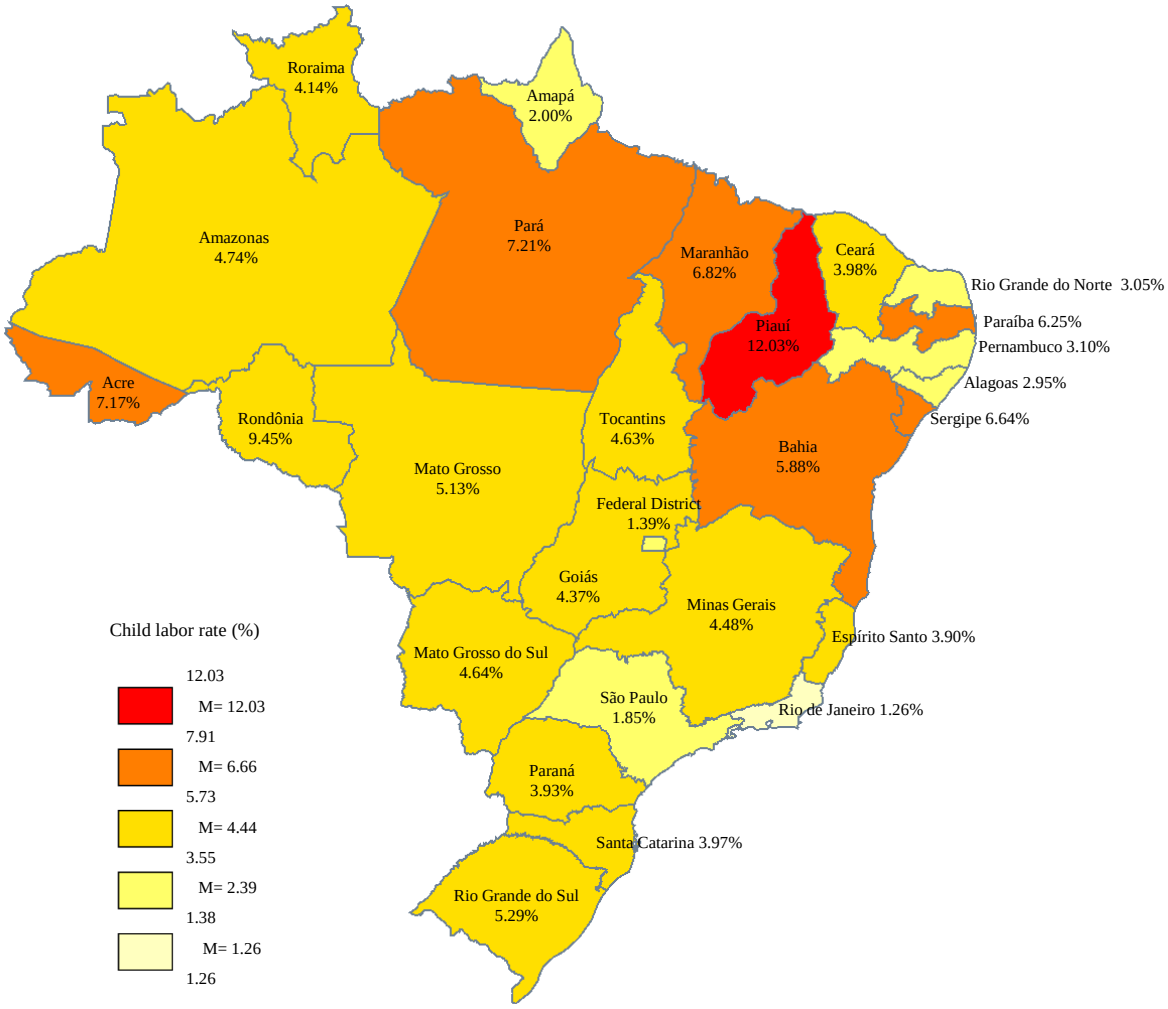
Figure 4: Percentage of child labor, by state, Brazil, 2004.



Source: Prepared using PNAD data.
Note: M denotes mean of child labor rate within interval.

were: Piauí, Rondônia, Maranhão, and Pará. In the same year, the lowest rates were observed (in increasing ranking order) for the Federal District, Rio de Janeiro, Amapá and São Paulo. Analogously for the year 2014, the states of Piauí, Pará, Acre, and Maranhão had the highest ranks, while the states of Rio de Janeiro, São Paulo, Amapá and the Federal District had the lowest rates. Impressively, the states of Pernambuco, Alagoas, Rondônia, and Ceará were able to significantly reduce the rate of child labor from 2004 to 2014. The most alarming observation during this period was the increase of 25.1% in the state of Sergipe and of 124% in the Federal District.

Figure 5: Percentage of child labor by state, by state, Brazil, 2014.



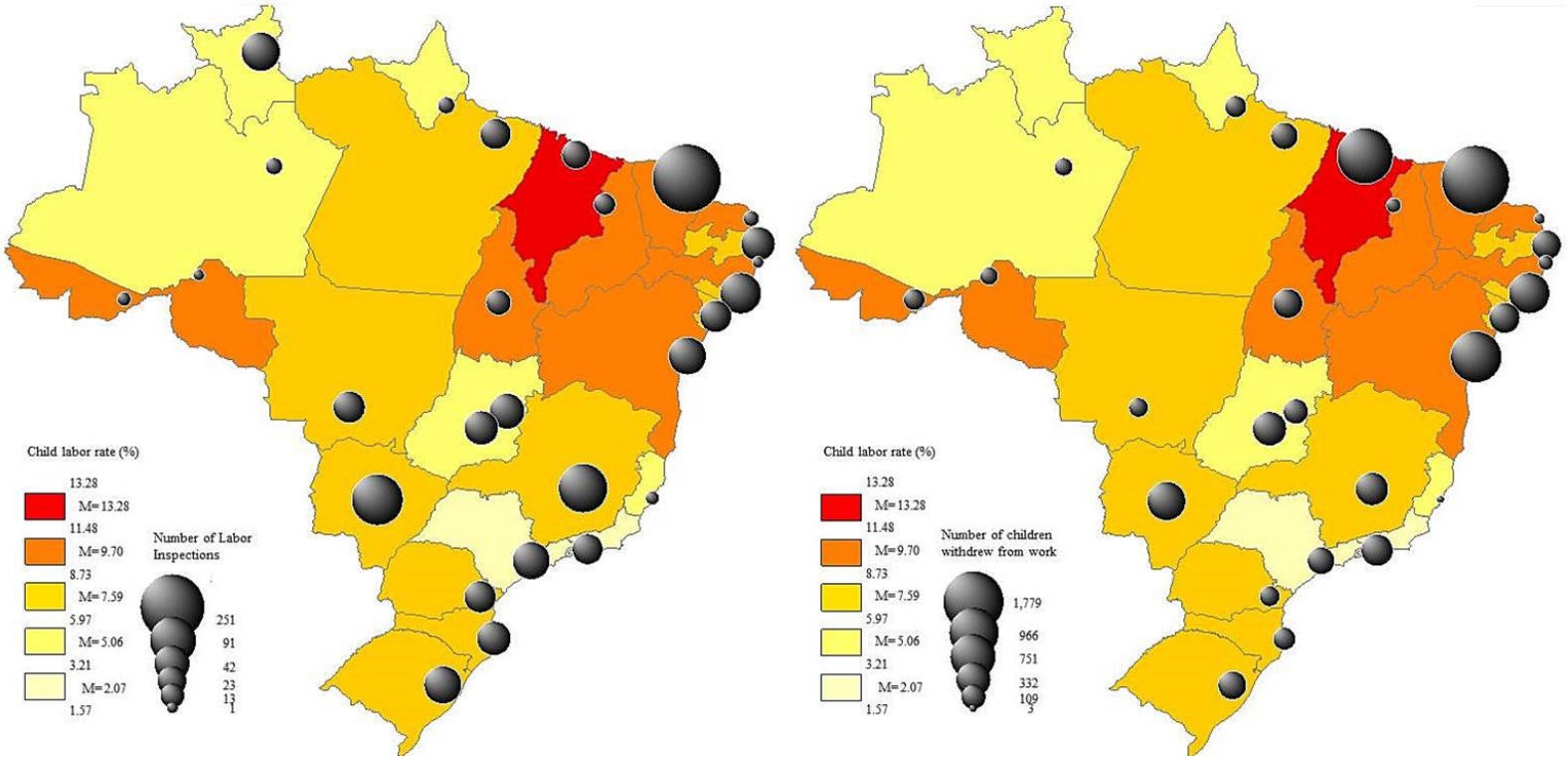
Source: Prepared using PNAD data.
Note: M denotes mean of child labor rate within interval.

3.2.2. Labor Inspection

Fig. 6 and 7[6] present the geographical distribution of the number of Labor Inspections conducted with a focus on child labor and the number of children who were effectively withdrawn from work in 2007 and 2014. Therefore, there are two subfigures in each figure – one for Labor Inspection coverage and the other for its effectiveness in reducing child labor. In line with ILO/SIT (2010), we recognize that the effectiveness of the Labor Inspection should not be exclusively measured by the number of children withdrawn from work, but also by the awareness-raising activities which precedes

[6]These maps are not labeled in order not to pollute figures. For identification of the Brazilian states refer to Fig. 4 or 5.

Figure 6: Rate of child labor, number of Labor Inspections and number of children withdrew from work, by state, Brazil, 2007.



(a) Labor Inspection (b) Children withdrawal

Source: Prepared using PNAD and Information System of Child Labor (SITI) data.
Note: M denotes mean of child labor rate within respective interval.

inspection. However, the effect of such activities is counterfactual.

Inasmuch as the Labor Inspection activities were conducted in all state one observes concentration in specific states. In the map (a) from Fig. 6 we note that the allocation of inspection activities does not really correspond to the rate of child labor in states. In 2007, the states of Piauí and Maranhão had the highest rates of child labor but were ranked in the 20th and 18th positions concerning the number of conducted inspections. Moreover, the states of Ceará, Mato Grosso do Sul and Minas Gerais are first, second and third, respectively, as to the number of conducted inspection but are 5th 17th and 18th, respectively, as to the highest rate of child labor. In fact, we observe that the highest rates of child labor are concentrated in the Northeast region and the lowest are observed in the Midwest and Southeast regions. However, the Northeast region is less prioritized than the Midwest and Southeast regions concerning inspection allocation. In this case, the distribution of the number of Labor Inspections among states is paradoxical since the major objective of the inspection activities is to reduce child labor.

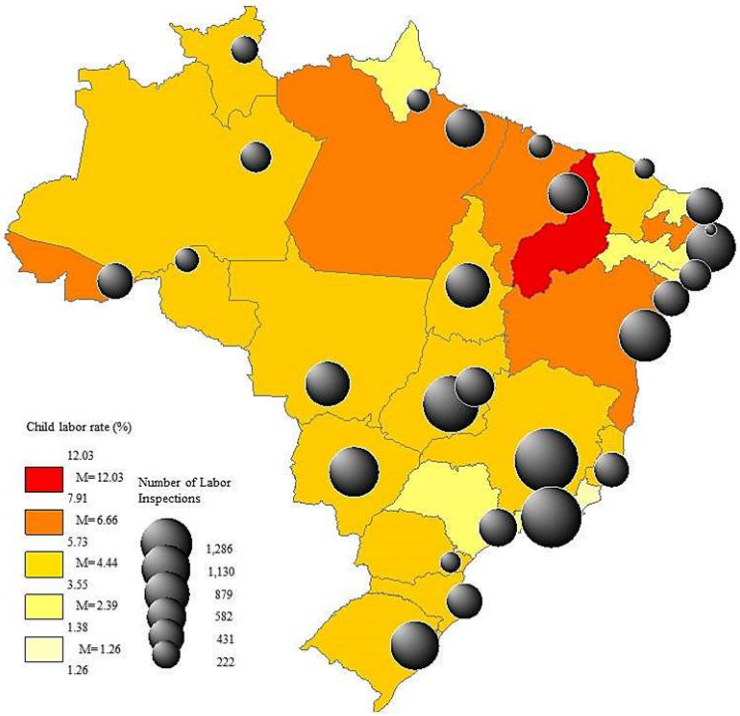
In order to understand this paradoxical distribution one has to consider the design and features of inspections and its proper articulation with other constitutional apparatus. Firstly, it is important to recall that the Labor Inspection depends on reported complaints in the region. However, this does not justify the paradoxical distribution since the complaints are only part of what guides the planning process. Still, on features, it is worthwhile to note that inspectors basically visit businesses and workplaces, overlooking child labor outside organized establishments. Take for example children who work as street vendors, in family agriculture, in informal urban activities or as domestic workers or housekeepers. These types of child labor are hardly reached due to their invisibility and difficulty to track down. Hence, a dilemma is also faced concerning the design of the Labor Inspection, i.e, focus on child labor in regions where the incidence is higher but invisible or on child labor in regions where the incidence is relatively low but visible. Although these alternatives are not mutually exclusive, they may end up concentrating Labor Inspection. Therefore, as child labor in the Northeast regions are more concentrated in family agriculture and domestic services inspection activities tend to be concentrated in other regions.

The proper articulation of the Labor Inspection and existing constitutional apparatus also determines the accessibility of inspectors in certain forms of child labor. According to the report published by Repórter Brasil (2013), the Brazilian constitutional right of inviolability of homes without judicial authorization inhibits effective access of inspectors in family environments, thus, impeding withdrawal of child laborers from family agriculture or domestic activities.

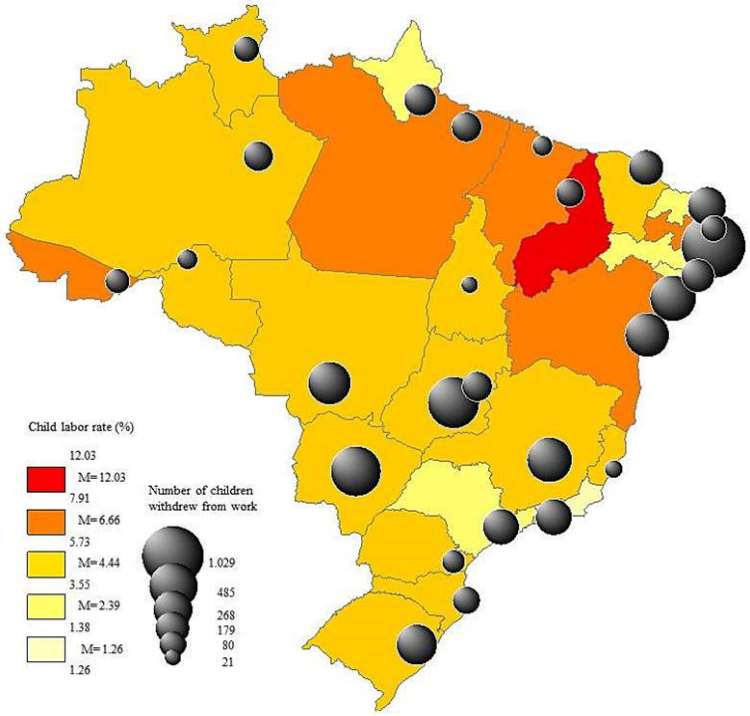
In terms of the effect of Labor Inspection on child labor, it is notable in Fig. 6b that greater number of children were withdrawn from work in the Northeast region compared to the Midwest and Southeast regions. For instance, the state of Maranhão, which had the highest rate of child labor in 2007 and was ranked in the 18th position on the inspection's priority list, had the second highest number of children withdrawn from work. Conversely, the states of Mato Grosso do Sul and Minas Gerais, which had lower child labor rates but were highly prioritized for inspection were not even on the top list of states which reduced child labor as a result of inspections.

In Fig. 7, the first observation is that of a general increase in the number of inspection activities in 2014. It is vivid that the number of Labor Inspections increased more in the Midwest, Southeast and Southern regions compared to others. Still, in 2014, none of the states with the highest rate of child labor, except Pernambuco, was prioritized on the inspection allocation list. In other words, the negative correlation

Figure 7: Rate of child labor, number of Labor Inspections and number of children withdrew from work, by state, Brazil, 2014.



(a) Labor Inspection



(b) Children withdrawal

Source: Prepared using PNAD and Information System of Child Labor (SITI) data.
Note: M denotes mean of child labor rate within respective interval.

between the rate of child labor and the number of conducted inspections, which was observed in 2007, persisted in 2014. However, we noted that despite the concentration of Labor Inspections in the Southern and Southeast regions, the Labor Inspection continued more effective in withdrawing children and adolescents from work in the Northeast region.

The effectiveness of inspections to reduce child labor was empirically confirmed by Almeida (2015). This author concluded that for years 2000 and 2010, each percentage increase in the number of inspections reduces the proportion of child laborers between age 10 and 17 in 0.22% and 0.26%, respectively. In absolute terms, inspection accounted for the reduction of, approximately, 8,658 and 8,856 child laborers in the year 2000 and 2010, respectively. Despite modest values, these authors acknowledged that the number of inspections and inspectors are still relatively small. However, this highly depends on the number of reported cases and, thus, the attitude of society towards child labor.

3.2.3. Conditional Cash Transfer

Fig. 8 illustrates the geographic distribution of the PBF benefit among states according to their child labor rates in 2004 and 2014. The first observation from Fig. 8a and 8b is that of similar allocation pattern of the PBF benefits in 2004 and 2014. We also observe concentration in the Northeast and Southeast regions in both years.

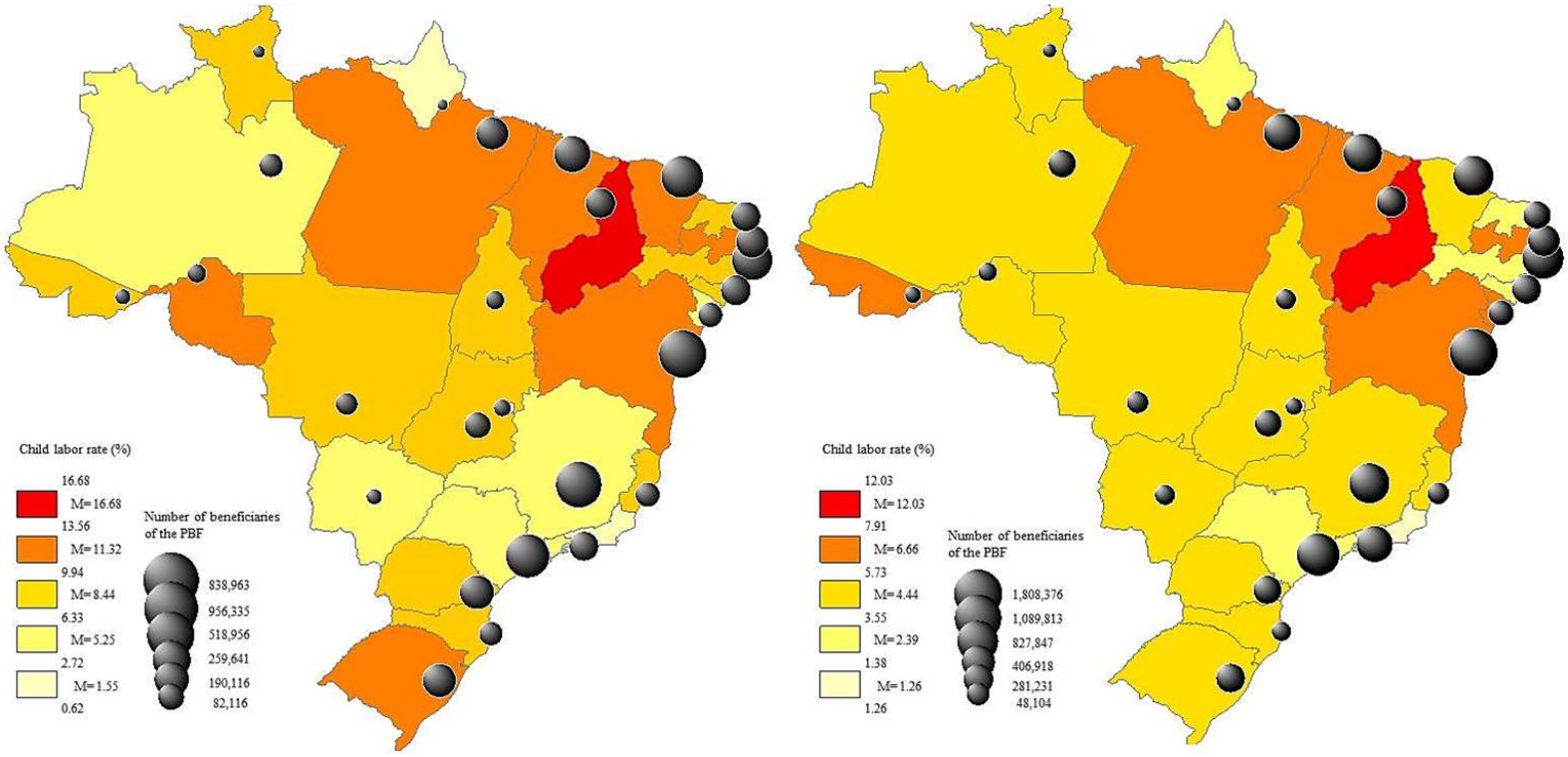
Comparing with child labor, there is no clear correlation between rates and the number of beneficiary families attended by the PBF in 2004 and 2014. In fact, we observe contradictory distribution in some states in both years. For example, the state of Acre that has one of the highest rates of child labor but is modestly attended by the program, compared to São Paulo which has the lowest rate of child labor but is one the most privileged by the PBF program. A similar relationship was found between the states of Sergipe and the Federal District. It perceptible from these maps that the main objective of the program is quite distant from directly reducing child labor. However, one can not be too demanding since the program only combats child labor through one of its conditionalities. It is also relevant to recall that participation in the PBF is voluntary and limited to the poor population.

To verify the potential reach of the PBF to address child labor, we analyze the poverty eligibility condition. Fig 9 and 10 present the classification of child laborers by their monthly family income per capita for the year 2004 and 2014. Note that the average family income presented does not include children's income. Thus only adults' income and legal income of adolescents in apprenticeship were considered. It is also important to emphasize that the analysis of these proportions is exclusively concerning child laborers and not comparative to non-child laborers. Moreover, the class intervals were strategical chosen to account for the extreme poverty lines (R$ 69 and R$ 77 per capita for year 2004 and 2014, respectively), poverty lines (R$ 137 and R$ 154 per capita for year 2004 and 2014, respectively) and minimum wage levels (R$ 260 and R$ 745 for 2004 and 2014, respectively). These same poverty and extreme poverty lines were used to stipulate the eligibility of families in the PBF conditional cash transfer program in both years. Having that the main objective here is to verify the relationship between family income levels and the incidence of child labor, the few cases of negative net family income were ignored[7].

For the year 2004, we observe that about 35% of child laborers were from extremely

[7]There were only cases of negative net family income for families without working adults or for cases in which children's income exceeds total income of adults from the same family, however, such cases were few.

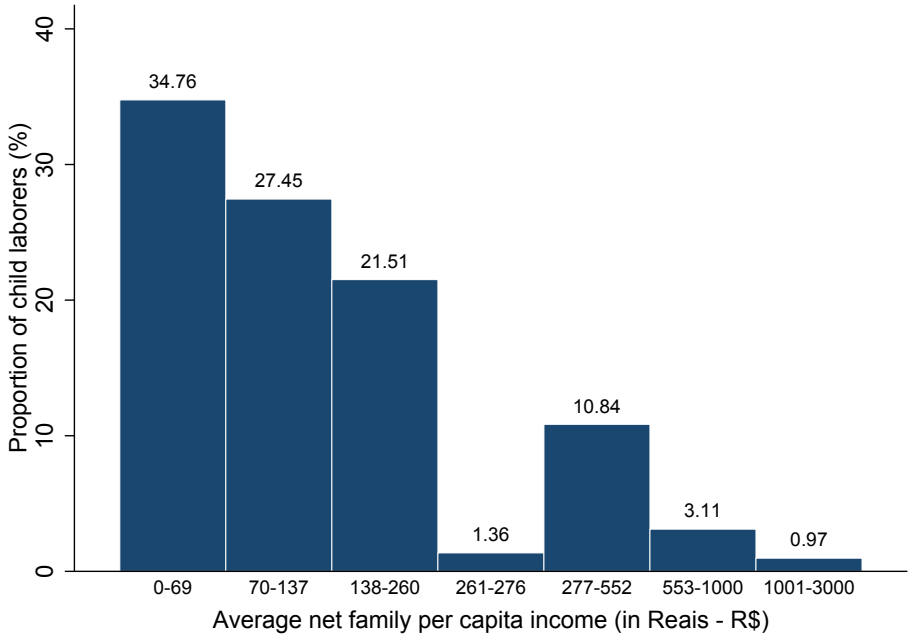
Figure 8: Rate of child labor and the number of families covered by the PBF program, by state, Brazil, 2004 and 2014.



(a) 2004 (b) 2014

Source: Prepared using PNAD and the Ministry of Social Development (MDE) data
Note: M denotes mean of child labor rate within respective interval.

Figure 9: Percentage of child labor by average family income, Brazil, 2004.



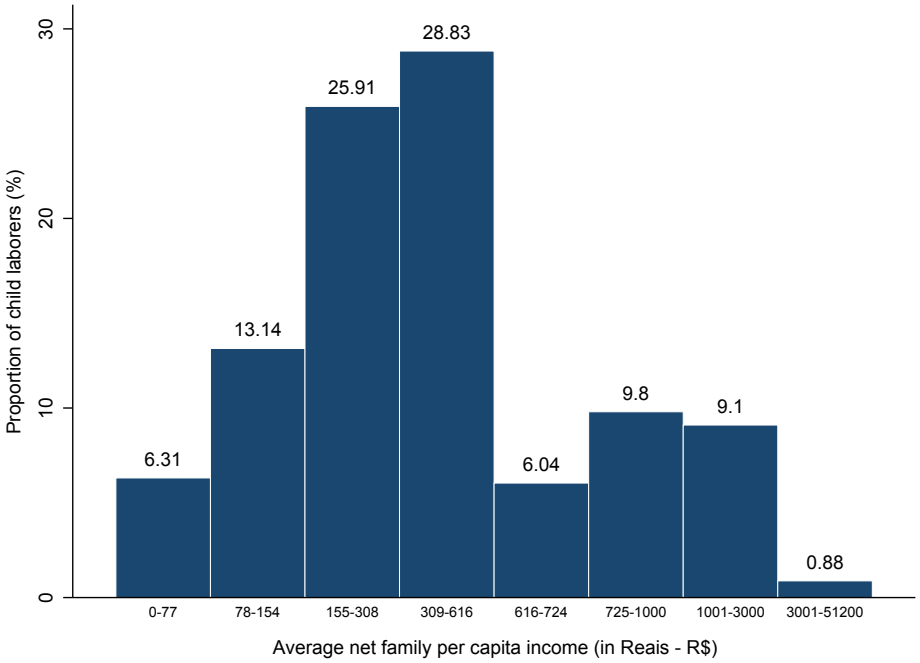
Source: Prepared using PNAD data.
Note: Income of children and adolescents were deducted from total family income.

poor families, while about 27% were from poor families. In other words, about 62% of child laborers were from families below the poverty line. Moreover, it is observable that the proportion of child laborers from families with average family income per capita between the poverty line and the minimum wage is lower compared to the anterior class interval. Taking into account the relative amplitude of each class interval, one can deduce that the proportion of child laborers reduces as the family income per capita increases. Therefore, our overall conclusion is that the distribution of child labor by family income levels is skewed right, thus, a positive relationship between family poverty and child labor is evident.

An overview of the same exercise for the year 2014 prompts curiosity, especially concerning the distribution which seems normal and not skewed right as observed for the year 2004. Specifically, in the year 2014, only about 6% of child laborers were from extremely poor families, while about 13% were from poor families. Cumulatively, only about 19% were from families below the poverty line. It is, however, reasonable to imagine that this poverty line is very low, so we double the poverty line (value of R$ 308). Still, more than half of the child laborers (about 55%) were not from poor families in 2014. Amplifying the poverty line further, we assumed that each member of the family (including adults and children) earns the minimum wage (value of R$ 742). Yet, almost 20% of the child laborers work.

Such a change in the profile of child laborers from 2004 to 2014 may have severe implications on the effectiveness of government social programs to reduce child labor. In our case, the PBF program has its coverage highly limited concerning child labor in 2014 since only poor and extremely poor families can participate. Specifically, about 31% and 81% of child laborers were not eligible to participate in this cash transfer program in 2004 and 2014, respectively. Nevertheless, we must recognize that reduction of child labor is not the primary objective of the program. Moreover, such change in the poverty profile of child laborers should not be treated as misfortune since it may be as a result of the general reduction or poverty and income inequality, which was

Figure 10: Percentage of child labor by average family income, Brazil, 2014.



Source: Prepared using PNAD data.
Note: Income of children and adolescents were deducted from total family income.

partly reinforced by cash transfer programs, as pointed by Hoffmann (2006), Soares et al. (2006) and Medeiros et al. (2007).

Although not our focus here, it is worthwhile to remind that the PETI program attends families above the poverty line. However, we believe that the value transferred to families in this program is too low to attract participation since such families are not poor and children are offered higher values in the informal labor market, even though subjected to unfair working conditions.

At this point, it becomes unsurprising why empirical studies hardly find the effectiveness of the PBF in reducing child labor, especially for recent years (see Araujo et al., 2010; Cacciamali et al., 2010; Aquino et al., 2010; Nascimento, 2013). Findings from these authors converge concerning the role of the PBF to increase school attendance, but not to reduce child labor. In short, these authors found a higher probability of child labor among beneficiaries of the PBF program. Do Nascimento et al. (2016) contributed by concluding that participation in the program has no significant effect neither on the probability of a child to work nor on working hours. However, evidence was found that the sum transferred to families contribute to reducing the probability of child labor, likewise working hours. This indicates that child labor can be reduced if benefits are sufficiently high.

These paradoxical results are analogous to those found for previous CCTs in Brazil, especially the *Bolsa Escola* Program. Particularly, Cardoso and Souza (2004) and Ferro and Kassouf (2005) concluded that, despite reducing working hours, child laborers from beneficiary families are most likely to conciliate work and study and are not convinced to leave work. Nonetheless, in posterior studies, Ferro et al. (2010) found that the *Bolsa Escola* Program contributed to reducing the probability of children from beneficiary families to work and increases the school enrollment of the same.

In sum, we do not find any clear consensus in literature concerning the effect of CCTs in Brazil. However, we are quite convinced based on our descriptive analysis

that the spatial allocation and domain of the PBF is contradictory and limited to face the scale of child labor in Brazilian states.

4. Concluding Remarks

The rate of child labor indeed reduced expressively during the period between 2004 and 2014. However, we observed that great part of this reduction was highly motivated by lower rates in rural areas. Still, concerning evolution, we noted that child labor reduced more in states from the North and Northeast regions, leading to slight homogenization of rates in Brazil as a whole in 2014.

As per governmental countermeasures, firstly, we found that labor inspection with focus on child labor has contradictory allocation among states in the sense that states with higher rates are not prioritized for inspections. Our readings clarified that such contradiction exists as a result of limits encountered during the planning and execution process of inspections. One the on hand, the annual plans which guide the allocation of inspections depend on reported cases of child labor in regions. Thus, the allocation is conditioned to the culture and attitude of the population towards the use of child labor. On the other hand, inspectors also face limit due to inaccessible areas such as domestic activities, family agriculture, and informal urban services. These areas are invisible to inspectors, especially, because of the difficulty to apprehend child laborers engaged in urban services and the right of inviolability of homes stipulated by the Brazilian Federal Constitution. As an aftermath, these limits tend to divert inspections from invisible and worst forms of child labor, thus, regionalizing inspection activities.

Similarly, we observed contradictory allocation of benefits of the PBF program. However, in this case, we acknowledge that the main objective of the program is to reduce poverty, and not child labor.

Studies have pointed to the reduction of poverty and income inequality in Brazil, partly as a result of governmental cash transfer programs designed to attend poor population. This trend coincided with the expressive reduction of child labor rate in Brazil, however, in an asymmetric manner since only poor population are attended these programs, such as the PBF. Particularly, we found that the poverty conditionality for participation in this program makes a portion of child laborers ineligible for not being from families below the poverty line. The portion was about 31% in 2004 and about 81% in 2014.

We emphasize that such change in child laborers' profile should not be addressed as a misfortune. In short, we believe that the PBF might have decently played its role among families below the poverty line. Therefore, we believe that it is time for the PETI to assume a major role to combat child labor since it focuses on population above the poverty line. For this, adjustments have to be made to this program such as raising the values of benefits so as to motivate these families to voluntarily participate. Moreover, such adjustment has to consider the level of family income of these child laborers and, most especially, the wage which the informal labor market has to offer.

Concisely, we believe that governmental policies designed to reduce child labor should be adjusted to fit the changes in child labor rate and profile in Brazilian state in order to overcome the limits and contradictions pointed out in this study.

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